

is only a deflection of the surface and no flipping of a surface. Furthermore, while Johnson shows three electrodes, these electrodes are used to open and close the opening in a manner that has no relevance to the invention as claimed in claims 66-72.

In Johnson, to close the opening a voltage is applied between two of the electrodes 23 and 21. To open the opening a voltage is applied between electrodes 23 and 25. These are the only electrodes and means of electrification defined in the Johnson Patent. The portion of col. 4 cited by the Examiner merely states that since the electric fields are isolated from the flow channel higher electric fields (i.e., higher voltages) may be used so that stiction does not cause a problem. There is no teaching of a separate electrode for overcoming stiction.

Similarly in Webb "flipping" is accomplished by providing a voltage to address electrode. There is no other electrified electrode. In this regard, both references are similar.

Taking this last fact into consideration, applicants submit that a person of skill in the art who wanted to further overcome any residual stiction after the applied coating would take the very same measure suggested by Johnson, namely raising the voltage. In fact, barring any arcing or breakdown, this would solve the problem. There would be neither motivation nor any benefit to doing anything else, especially considering that Webb does not flip the panel, but only deforms the mirror (panel).

Most importantly there is no teaching in either reference for more than one electrode as required in independent claim 66, vibrating anything (claim 67) or a *separate* stiction countering electrode, separate from any electrode that causes movement (claim 68).

Applicants also submit that there is no reasonable way that the two references could be combined other than just to increase the voltage in Webb. The Examiners statement in the paragraph bridging pages 3 and 4 of the action that since providing an electric field to overcome stiction is known from Johnson, it would have been obvious to use two electrodes to do so is not based on Johnson (which uses application of only a single voltage between two electrode for both stiction and motion) or Webb, but rather, applicants suggest, on the present invention, as described in the present application. Since, a method (increased voltage) for using only the moving electrodes to overcome stiction is given, since no suggestion to use separate electrodes is given and since there does not appear to be any reasonable way to combine the two references in a single device (and none is given by the Examiner), it appears that none of the important criteria given in the MPEP for a *prima facie* obvious combination are met and claims 66 and 68 (and claims dependent on them) are not *prima facie* obvious.

As to claim 67, the Examiner indicates that since Johnson teaches the use of certain broad classes of materials it would have been obvious to provide piezoelectric materials. Applicants traverse this reasoning.

Firstly, one would have used piezoelectric materials only if there were some reason for doing so. Even if one were to do as the Examiner suggests (and as indicated in the next paragraph, there is motivation not to do so), the limitations of claim 67 would still not be met. In particular, claim 67, which is a method claim, requires, *inter alia*:

(1) counteracting stiction between said panel and a surface by *vibrating* said panel relative to said surface; and

(2) wherein said vibration is effected by suitable electrifying of a piezoelectric material coupled to said panel.

Even were someone to be motivated by Webb and/or Johnson to produce the device from a piezoelectric material, there is still no teaching or motivation in either reference to vibrate the panel with respect to the surface or effecting such vibration in the manner claimed.

Furthermore, piezoelectric materials do not generally provide for the ease of manufacturing of the device, as taught by Johnson and Webb which use standard semiconductor microelectronic fabrication techniques. Not only are such materials harder to work, but they are often expensive as well (as compared to silicon). While Johnson does describe alternative *insulator* materials at col. 2, lines 31-35, the last phrase in this portion, namely "compatibility with other materials," would, it is submitted, teach away from the use of piezoelectric materials commonly used. Again, such a combination would appear to be based on hindsight.

In summary regarding claim 67, applicants submit that there is no teaching or motivation in either reference for making the combination mooted by the Examiner and that even if it were made; significant elements of the claim would be missing. Thus, there is no *prima facie* case for obviousness.

While in view of the above, applicants do not believe that the dependent claims need to be argued, applicants note that claims 70 and 74 contain the limitation that the force of the stiction countering electrode interferes with the motion. There is no teaching in either reference of such a feature, even were the combination mooted by the Examiner found to provide a *prima facie* case of obviousness of the parent claims. Furthermore, it is not at all clear how the limitation of claims 70 and 74 could be provided, in the event that such a combination could be conceived of.

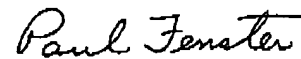
Similarly claim 71 defines a particular structure that is neither shown nor taught by either reference or would follow from their teachings. As such claim 71 is not *prima facie* obvious.

Claim 73 defines a sequence of voltages of the different electrodes. Even were it obvious to combine the two references in some way to provide two separate electrodes for motion and stiction (which applicants clearly do not agree is *prima facie* obvious), there is no teaching to provide disconnect of the stiction force prior to application of the flipping force. In fact, since Johnson teaches only a single force to be applied, Johnson teaches against the acts of claim 73.

In view of the above remarks applicants submit that claims are patentable and that the application is in order for allowance. Notice to that effect is respectfully solicited.

If the Examiner believes that a telephonic interview would be useful in resolving any remaining issues, the undersigned can be reached by telephone at +1 (877) 428-5468, which is a US toll free number connected directly to our office in Israel (please note the 7 hour time difference and the official work week is from Sunday to Thursday).

Respectfully submitted,
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April 27, 2004

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